

IN THE CLAIMS

1. (Original) A medical grade deformor, comprising:
an axial member; and
5 a pliable tube mounted on said axial member and adapted to be deformed from a first, narrower diameter, configuration to a second, greater diameter, configuration.
- 10 2. (Original) A deformor according to claim 1, wherein said tube is slotted through its thickness.
- 15 3. (Original) A deformor according to claim 1, wherein said tube is not slotted.
4. (Original) A deformor according to claim 1, comprising at least one end engaging one end of said tube and adapted to apply compressive force to said tube for achieving said deformation.
- 15 5. (Original) A deformor according to claim 4, comprising at least a second end one end engaging a second end of said tube and adapted to cooperate with said first end to compress said tube.
- 20 6. (Original) A deformor according to claim 5, wherein said two engaging ends and said axial member lock to maintain said pliable tube in a greater diameter configuration.
- 25 7. (Original) A deformor according to claim 1, wherein said tube changes configuration by axial compression thereof.
8. (Original) A deformor according to claim 1, wherein said axial member is rigid.
9. (Original) A deformor according to claim 1, wherein said axial member is flexible.
- 30 10. (Original) A deformor according to claim 1, wherein said axial member extends out of said tube and is attached to a handle.

11. (Original) A deformer according to claim 1, wherein said axial member comprises a release mechanism for release of said deformer from a delivery system.

12. (Original) A deformer according to claim 11, wherein said axial member comprises a locking mechanism for locking of said deformer in a greater diameter configuration in conjunction with release.

13. (Original) A deformer according to claim 1, wherein said deformer includes a channel adapted for bone filler flow.

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14. (Original) A deformer according to claim 13, wherein said channel is formed in said axial member.

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15. (Original) A deformer according to claim 13, wherein said channel is formed between said axial member and said tube.

16. (Original) A deformer according to claim 1, wherein said axial member extends from said tube and is adapted to function as a hinge of a joint.

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17. (Original) A deformer according to claim 1, wherein said deformer forms a bone attachment unit for a prosthesis.

18. (Original) A deformer according to claim 1, comprising an enclosing bag, which surrounds said tube in said second configuration.

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19. (Original) A deformer according to claim 18, wherein said bag is bio-degradable in the body.

20. (Original) A deformer according to claim 18, wherein said bag is porous.

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21. (Original) A deformer according to claim 1, wherein said deformer defines a general volume in the shape of a cylinder when in said second configuration.

22. (Original) A deformér according to claim 1, wherein said deformér defines a general volume in the shape of a truncated pyramid when in said second configuration.

23. (Original) A deformér according to claim 1, wherein said deformér defines an axially 5 rotationally asymmetric general volume when in said second configuration.

24. (Original) A deformér according to claim 1, wherein said deformér defines a predetermined general volume when in said second configuration.

10 25. (Original) A deformér according to claim 1, wherein said deformér comprises a set of axially contiguous zones with different material properties.

26. (Original) A deformér according to claim 1, wherein said deformér has a non-smooth outer surface in said second configuration.

15 27. (Original) A deformér according to claim 1, wherein said deformér is stiff enough, when in said second configuration to resist a trans-axial force of at least 50Kg.

28. (Original) A deformér according to claim 1, wherein said deformér, when in said 20 second configuration has an axial applied force of at least 2Kg.

29. (Original) A deformér according to claim 1, wherein said pliable material has a shore hardness of between 50A and 90D.

25 30. (Original) A deformér according to claim 1, wherein said pliable material is non-metallic.

31. (Original) A deformér according to claim 1, wherein said pliable material is polymeric.

30 32. (Original) A deformér according to claim 1, wherein said deformér includes at least one axial thread.

33. (Original) A deformér according to claim 1, wherein said deformér includes at least one circumferential thread.

34. (Original) A deformor according to claim 1, wherein said deformor, in said second configuration, defines a general volume and wherein said deformor fills at least 30% of said volume.

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35. (Original) A deformor according to claim 1, wherein said deformor, in said second configuration, defines a general volume and wherein said deformor fills at least 50% of said volume.

10 36. (Original) A deformor according to claim 1, wherein said tube defines a plurality of slots, such that when deformed to the second configuration, a plurality of axially displaced leaves extend from said tube to define said second configuration.

15 37. (Original) A deformor according to claim 36, wherein said tube defines at least three axially displaced leaves.

38. (Original) A deformor according to claim 36, wherein adjacent leaves support each other, in said second configurations.

20 39. (Original) A deformor according to claim 36, wherein an end leaf is shorter than a non-end leaf.

40. (Original) A deformor according to claim 36, wherein an end leaf is supported, on one side thereof, by an end cap of said deformor.

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41. (Original) A deformor according to claim 36, wherein adjacent leaves deform each other.

42. (Original) A deformor according to claim 36, wherein at least 50% of the leaves are 30 deformed from a plane.

43. (Original) A deformor, comprising a non-inflatable substantially non-absorbent deformable non-metallic body having two configurations, a first configuration in which said body has a narrower diameter and a second configuration in which said narrower diameter is

greater, wherein said deformor is adapted to remain substantially undeformed under a force of over 10 Kg and wherein said deformor is sized for positioning inside a human vertebra.

44. (Original) A deformor according to claim 43, wherein said deformor is adapted to
5 remain substantially undeformed when in a human lumbar vertebra in standing condition.

45. (Original) A deformor according to claim 43, wherein said deformor is self-expanding.

46. (Original) A deformor according to claim 43, as part of kit including a spinal access
10 tool.

47. (Original) A method of spinal surgery, comprising:
inserting a non-inflatable non-absorbent deformable deformor into a vertebra; and
deforming said deformor such that cortical bone of vertebral faces of said vertebra,
15 move relative to each other.

48. (Original) A method of treating a bone, comprising:
inserting a unsealed pliable element into the bone; and
mechanically deforming the pliable element such that said pliable element applies
20 deforming force on the bone.

49. (Original) A method according to claim 48, wherein said pliable element comprises at least one open aperture of cross-section greater than 0.5x0.5 mm.

25 50. (Original) A method according to claim 48, wherein said bone comprises a vertebral bone.

51. (Original) A method according to claim 48, wherein said bone comprises a long bone.

30 52-61. (Cancelled)